

Patent Claims

1. An arrangement for directed provision and
5 installation of device-specific functionalities and/or
information for field devices (70) which are arranged
in a distributed system, with at least one device-
specific component (20) being provided, which interacts
with at least two functional units (30) which are
10 linked to it, and in which means are provided at least
in one device-specific component (20) which
automatically result in provision and installation of
device-specific functionalities and/or information for
the field devices (70), which are stored in the
15 functional units (30).

2. The arrangement as claimed in claim 1,
characterized in that the arrangement is stored in a
memory medium.
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3. The arrangement as claimed in claim 1 or 2,
characterized in that the device-specific
functionalities and/or information which are/is stored
in the functional units (30) are/is provided and
25 installed in a higher-level control system or
controller (90) relating to the distributed system for
the field devices (70).

4. The arrangement as claimed in one of the preceding
30 claims, **characterized** in that the device-specific
functionalities and/or information which are/is stored
in the functional units (30) are/is installed by means
of an automatically running installation process.

35 5. The arrangement as claimed in one of the preceding
claims, **characterized** in that configuration tools (50)
are provided for installation of the communication

between the field devices (70) and/or with the higher-level control system or controller (90).

6. The arrangement as claimed in one of the preceding
5 claims, **characterized** in that network components (40) are provided for installation of the network links for a specific communication architecture.

7. The arrangement as claimed in one of the preceding
10 claims, **characterized** in that the functional units (30) are device documentation and/or device core data and/or device parameters and/or device drivers and/or control functions and/or setting-up functions and/or diagnosis functions and/or maintenance functions and/or
15 optimization functions and/or alarm processing functions and/or life functions.

8. The arrangement as claimed in one of the preceding
20 claims, **characterized** in that the device-specific components (20) and/or the configuration tools (50) and/or the network components (40) can be installed in an installation process.

9. The arrangement as claimed in claim 7,
25 **characterized** in that the device-specific components (20), the configuration tools (50) and/or the network components (40) can be installed selectively.

10. The arrangement as claimed in one of the preceding
30 claims, **characterized** in that drives and/or motor protection units and/or switchgear assemblies and/or sensors, in particular sensors for pressure, temperature and flow rate measurements, and/or low voltage devices and/or actuators and/or analysis
35 devices are used as field devices (70).

11. The arrangement as claimed in one of the preceding
claims, **characterized** in that device-specific

functionalities and/or information are/is recorded as data structures and/or program components in the device-specific components (20).

5 12. The arrangement as claimed in one of the preceding claims, **characterized** in that the device-specific components (20) are tested for the correctness and/or completeness of the device-specific functionalities and/or information.

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13. The arrangement as claimed in one of the preceding claims, **characterized** in that the device-specific components (20) can be extended in a modular form.

15 14. The arrangement as claimed in one of the preceding claims, **characterized** in that the distributed system is a distributed automation system.

20 15. The arrangement as claimed in one of the preceding claims, **characterized** in that the higher-level system (90) is a process control system or a programmable logic controller.

25 16. The arrangement as claimed in one of the preceding claims, **characterized** in that the field devices (70) communicate with the higher-level control system or controller (90) via a fieldbus protocol which is in the form of PROFIBUS and/or PROFINet and/or FOUNDATION fieldbus and/or HART.

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17. A method for directed provision and installation of device-specific functionalities and/or information for field devices (70) which are arranged in a distributed system, with at least one device-specific component (20) being provided, which interacts with at least two functional units (30) which are linked to it, and by means of which device-specific functionalities and/or information which are/is stored in the

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functional units (30) for the field appliances (70) are automatically provided and installed at least in one device-specific component (20).

5 18. The method as claimed in claim 17, **characterized** in that the arrangement is stored in a memory medium.

19. The method as claimed in claim 17 or 18, **characterized** in that the device-specific
10 functionalities and/or information which are/is stored in the functional units (30) are/is provided and installed in a higher-level control system or controller (90) relating to the distributed system for the field devices (70).

15 20. The method as claimed in claims 17 to 19, **characterized** in that the device-specific functionalities and/or information which are/is stored in the functional units (30) are/is installed by means
20 of an automatically running installation process.

21. The method as claimed in claims 17 to 20, **characterized** in that configuration tools (50) are used for the installation of the communication between the
25 field devices (70) and/or with the higher-level control system or controller (90).

22. The method as claimed in claims 17 to 21, **characterized** in that network components (40) are
30 provided for installation of the network links for a specific communication architecture.

23. The method as claimed in claims 17 to 23, **characterized** in that the functional units (30) provide
35 device documentation and/or device core data and/or device parameters and/or device drivers and/or control functions and/or setting-up functions and/or diagnosis functions and/or maintenance functions and/or

optimization functions and/or alarm processing functions and/or life functions.

24. The method as claimed in claims 17 to 23,
5 **characterized** in that the device-specific components (20) and/or the configuration tools (50) and/or the network components (40) are installed in an installation process.

10 25. The method as claimed in claims 17 to 23, **characterized** in that the device-specific components (20), the configuration tools (50) and/or the network components (40) are installed selectively.

15 26. The method as claimed in claims 17 to 25, **characterized** in that drives and/or motor protection units and/or switchgear assemblies and/or sensors, in particular sensors for pressure, temperature and flow rate measurements, and/or low voltage devices and/or
20 actuators and/or analysis devices are used as field devices (70).

27. The method as claimed in claims 17 to 26, **characterized** in that device-specific functionalities
25 and/or information are/is recorded as data structures and/or program components in the device-specific components (20).

28. The method as claimed in claims 17 to 27,
30 **characterized** in that the correctness and/or completeness of the device-specific functionalities and/or information are tested.

29. The method as claimed in claims 17 to 28,
35 **characterized** in that modular extensions are provided in the device-specific components (20).

30. The method as claimed in claims 17 to 29 **characterized** in that the distributed system is in the form of a distributed automation system.

5 31. The method as claimed in claims 17 to 30 **characterized** in that the higher-level system (90) is in the form of a process control system or a programmable logic controller.

10 32. The method as claimed in claims 17 to 31, **characterized** in that the field devices (70) communicate with the higher-level control system or controller (90) via a fieldbus protocol which is in the form of PROFIBUS and/or PROFINet and/or FOUNDATION
15 fieldbus and/or HART.